

Build-Out Comparison

Table 1: Build-out Summary: Comparison of Revised General Plan Build-out with the Route 28 Corridor Plan September 3, 2010 Staff Draft and October 20, 2010 PC Subcommittee Draft (Low)¹

Build-out	Office (sq. ft.)	Flex (sq. ft.)	Light Industrial (sq. ft.)	Industrial (sq. ft.)	Special Activity (sq. ft.)	Retail (sq. ft.)	Civic (sq. ft.)	Residential (dwelling unit)
LOW FAR/Density Calculations²								
Revised General Plan (RGP)	63,320,182	N/A	10,523,774	3,312,102	915,534	10,805,755	905,575	9,123
Route 28 Corridor Plan September 3, 2010 Staff Draft	70,572,554	12,822,383	3,179,322	489,127	915,534	11,518,855	1,268,277	10,936
Difference between RGP and Staff Draft	7,252,372	Included in Light Industrial	5,477,931	-2,822,975	0	713,100	362,702	1,813
Revised General Plan (RGP)	63,320,182	N/A	10,523,774	3,312,102	915,534	10,805,755	905,575	9,123
Route 28 Corridor Plan October 20, 2010 PC Subcommittee Draft	72,294,716	12,742,014	3,179,322	489,127	915,534	12,887,547	1,890,205	14,045
Difference between RGP and PC Subcommittee Draft	8,974,534	Included in Light Industrial	5,397,563	-2,822,975	0	2,081,792	984,630	4,922

¹Build-out assumptions and rules are provided in Attachment 1. Please note that major and minor floodplains were removed from build-out calculations.

²Low floor-area-ratio/density assumptions as well as land use mix assumptions are provided in Tables 1-5 in Attachment 1.

Table 2: Build-out Summary: Comparison of Revised General Plan Build-out with the Route 28 Corridor Plan September 3, 2010 Staff Draft and October 20, 2010 PC Subcommittee Draft (High)¹

Build-out	Office (sq. ft.)	Flex (sq. ft.)	Light Industrial (sq. ft.)	Industrial (sq. ft.)	Special Activity (sq. ft.)	Retail (sq. ft.)	Civic (sq. ft.)	Residential (dwelling unit)
HIGH FAR/Density Calculations²								
Revised General Plan	144,118,379	N/A	10,523,774	3,312,102	1,756,068	15,426,077	1,706,149	9,973
Route 28 Corridor Plan September 3, 2010 Staff Draft	164,565,308	12,822,383	3,179,322	489,127	1,756,068	19,494,361	2,431,554	13,599
Difference between RGP and Staff Draft	20,446,929	Included in Light Industrial	5,477,931	-2,822,975	0	4,068,284	725,405	3,626
Revised General Plan	144,118,379	N/A	10,523,774	3,312,102	1,756,068	15,426,077	1,706,149	9,973
Route 28 Corridor Plan October 20, 2010 PC Subcommittee Draft	144,857,653	12,742,014	3,179,322	489,127	1,756,068	20,190,391	3,401,940	18,451
Difference between RGP and PC Subcommittee Draft	739,274	Included in Light Industrial	5,397,563	-2,822,975	0	4,764,314	1,695,791	8,478

¹Build-out assumptions and rules are provided in Attachment 1. Please note that major and minor floodplains were removed from build-out calculations.

²High floor-area-ratio/density assumptions as well as land use mix assumptions are provided in Tables 1-5 in Attachment 1.

Table 3: Revised General Plan Build-out (LOW and HIGH)¹

Planned Land Use:	Office (sq. ft.)	Light Industrial (sq. ft.)	Industrial (sq. ft.)	Special Activity (sq. ft.)	Retail (sq. ft.)	Civic (sq. ft.)	Residential (dwelling unit)
Urban Center	2,601,984 – 5,203,968	0	0	0	780,595 – 1,561,190	520,397 – 1,040,794	1,300 – 2,150
Keynote Employment	45,014,009 – 107,210,907	0	0	75,000	2,306,792	105,000	1,400
Destination Retail	0	0	0	0	4,317,319 – 6,475,978	N/A	0
Business: Regional Office	7,744,620 – 19,361,549	726,058	0	0	302,524	N/A	0
Business: Light Industrial	4,741,822 – 6,322,429	8,851,401	0	0	790,304	N/A	0
TREC	2,801,779 – 5,603,558	0	0	840,534 – 1,681,068	1,681,068 – 3,362,135	280,178 – 560,356	0
Industrial	236,579	946,315	3,312,102	0	236,579	0	0
Planned Residential	0	0	0	0	0	N/A	1,494
Planned High Density Residential	0	0	0	0	0	N/A	355
Existing Residential	0	0	0	0	0	N/A	4,574
Neighborhood Serving Retail (Planned Residential North of Route 7)	179,389	0	0	0	390,575	N/A	0
Total	63,320,182 – 144,118,379	10,523,774	3,312,102	915,534 – 1,756,068	10,805,755 – 15,426,077	905,575 – 1,706,149	9,123 – 9,973

¹ Build-out assumptions and rules are provided in Attachment 1. Please note that major and minor floodplains were removed from build-out calculations.

**Table 4: September 3, 2010 Staff Draft
Route 28 Corridor Plan Build-out (LOW and HIGH)¹**

Proposed CPAM Planned Land Use:	Office (sq. ft.)	Flex (sq. ft.)	Light Industrial (sq. ft.)	Industrial (sq. ft.)	Special Activity (sq. ft.)	Retail (sq. ft.)	Civic (sq. ft.)	Residential (dwelling unit)
Urban Center	2,601,984 – 5,203,968	0	0	0	0	780,595 – 1,561,190	520,397 – 1,040,794	1300 – 2,150
Mixed-Use Office²	7,176,434 – 10,803,458	0	0	0	75,000	2,393,634 – 3,844,444	467,702 – 830,405	3,213 – 5,026
Route 28 Core	21,122,645 – 52,806,612	0	0	0	0	2,346,961 – 5,867,401	N/A	0
Route 28 Core (South of Sterling, East of Route 28)	4,319,680 – 10,799,199	0	0	0	0	1,851,291	N/A	0
Route 28 Business: Office	28,855,677 – 72,139,193	2,705,220	0	0	0	1,127,175	N/A	0
Route 28 Business: Flex	3,514,965 – 7,029,931	9,138,910	0	0	0	702,993 – 878,741	N/A	0
TREC	2,801,779 – 5,603,558	0	0	0	840,534 – 1,681,068	1,681,068 – 3,362,135	280,178 – 560,356	0
Industrial	0	978,253	3,179,322	489,127	0	244,563 – 611,408	0	0
Planned Residential	0	0	0	0	0	0	N/A	1,494
Planned High Density Residential	0	0	0	0	0	0	N/A	355
Existing Residential	0	0	0	0	0	0	N/A	4,574
Neighborhood Serving Retail (Planned Residential North of Route 7)	179,389	0	0	0	0	390,575	N/A	0
Total	70,572,554 – 164,565,308	12,822,383	3,179,322	489,127	915,534 – 1,756,068	11,518,855 – 19,494,361	1,268,277 – 2,431,554	10,936 – 13,599

¹Build-out assumptions and rules are provided in Attachment 1. Please note that major and minor floodplains were removed from build-out calculations.

²Additional nonresidential and residential development may be achieved if unmet housing needs objectives are met per the Route 28 Corridor policies.

**Table 5: October 20, 2010 Planning Commission Subcommittee Draft
Route 28 Corridor Plan Build-out (LOW and HIGH)¹**

Proposed CPAM Planned Land Use:	Office (sq. ft.)	Flex (sq. ft.)	Light Industrial (sq. ft.)	Industrial (sq. ft.)	Special Activity (sq. ft.)	Retail (sq. ft.)	Civic (sq. ft.)	Residential (dwelling unit)
Urban Center	2,601,984 – 5,203,968	0	0	0	0	780,595 – 1,561,190	520,397 – 1,040,794	1,300 – 2,150
Mixed-Use Office²	13,395,713 – 20,507,319	0	0	0	75,000	4,881,346 – 7,725,988	1,089,630 – 1,800,791	6,322 -9,878
Route 28 Core	19,628,267 – 32,713,778	0	0	0	0	2,180,919 – 3,634,864	N/A	0
Route 28 Core (South of Sterling, East of Route 28)	2,174,202 – 3,623,669	0	0	0	0	931,801	N/A	0
Route 28 Business: Office	27,998,417 – 69,996,041	2,624,852	0	0	0	1,093,688	N/A	0
Route 28 Business: Flex	3,514,965 – 7,029,931	9,138,910	0	0	0	702,993 – 878,741	N/A	0
TREC	2,801,779 – 5,603,558	0	0	0	840,534 – 1,681,068	1,681,068 – 3,362,135	280,178 – 560,356	0
Industrial	0	978,253	3,179,322	489,127	0	244,563 – 611,408	0	0
Planned Residential	0	0	0	0	0	0	N/A	1,494
Planned High Density Residential	0	0	0	0	0	0	N/A	355
Existing Residential	0	0	0	0	0	0	N/A	4,574
Neighborhood Serving Retail (Planned Residential North of Route 7)	179,389	0	0	0	0	390,575	N/A	0
Total	72,294,716 – 144,857,653	12,742,014	3,179,322	489,127	915,534 – 1,756,068	12,887,547 – 20,190,391	1,890,205 – 3,401,940	14,045 – 18,451

¹Build-out assumptions and rules are provided in Attachment 1. Please note that major and minor floodplains were removed from build-out calculations.

²Additional nonresidential and residential development may be achieved if unmet housing needs objectives are exceeded per the Route 28 Corridor policies.

ATTACHMENT 1
Route 28 CPAM Build-out

Build-Out

Build-out has been calculated based on (1) existing policies in the Revised General Plan, (2) the September 3, 2010 Staff Draft Route 28 Corridor Plan policies, and (3) the Planning Commission Subcommittee Draft through October 20, 2010 using the land use mix assumptions in Tables 1 and 3 and the densities provided in Tables 2, 4, and 5 on pages 3 - 7.

On October 13, 2010 and October 20, 2010 the Planning Commission Subcommittee (PC Subcommittee) discussed:

- Expanding the areas where a Mixed-Use Office Center may be located within the Route 28 Corridor;
- Reducing the maximum floor-area-ratios (FARs) for the northern and central Mixed-Use Office Centers from a maximum 2.0 FAR to a maximum 1.0 FAR with the potential to achieve a 1.5 FAR with incentives;
- Reducing the southern Mixed-Use Office Center's maximum FAR to a 1.5 with the potential to go up to a 2.0 FAR with incentives; and
- Reducing the maximum FARs for the Route 28 Core from a maximum 1.5 FAR to a maximum 1.0 FAR.

Rules

The following rules were used when calculating buildable area for both the Route 28 Corridor Plan build-outs and the Revised General Plan build-out:

- General land area occupied by each use was used for build-out purposes rather than a parcel specific analysis.
- For the purposes of build-out, the following were removed from the calculations:
 - Major and minor floodplains;
 - Route 28 right-of-way;
 - Government owned properties;
 - County Parks;
 - The W&OD Trail; and
 - Loudoun Water and Redskins Park
- All areas were assumed to develop per the land use mix assumptions below except for:
 - Assumed approved development for Kincora (ZMAP 2008-0021 and SPEX 2008-0054);
 - Existing residential developments were assumed to retain their existing densities;
 - Vacant planned High Density Residential and Residential areas were assumed to develop based on the highest possible land use densities as recommended by the Plan Victoria Station – 10 dwelling units per acre; Pearson Reserve – 8 dwelling units per acre; and Residential areas – 4 dwelling units per acre);
 - Planned Residential north of Route 7 (Countryside/Parc City Centre) was assumed to retain the existing office and retail square footages;

- Dwelling units were calculated based on 1,000 square feet per unit.
- Staff calculated build-out for the Mixed-Use Office Centers under the PC Subcommittee recommendations assuming the maximum FAR with incentives is achieved.
- While developments will be expected to provide a minimum amount of Parks and Open Spaces and Public and Civic uses, the land area occupied by these uses has been used for density calculations, except for when calculating the mix of uses for the Urban Center, Mixed-Use Office Center, and the TREC which are all expected to provide public and civic buildings.
- Commercial retail and service uses were assumed to develop at a maximum 0.25 FAR in areas where these uses are not expected to be predominately vertically integrated with other uses, due to the higher parking requirements needed for these types of uses.
- Commercial retail and service uses were assumed to develop at a maximum 0.6 FAR in the Route 28 Core, east of Route 28, south of Sterling Boulevard where a higher concentration of hotel and entertainment uses are envisioned.
- Flex, light industrial, and industrial uses were assumed to develop at a maximum 0.2 FAR due to buildings typically being one to two-stories for these types of uses, resulting in a less intense development.

Table 1: Revised General Plan Land Use Mix Assumptions¹

	Office	Light Industrial	Industrial	Special Activity	Retail ²	Residential	Civic
Urban Center ³	50%				15%	25%	10%
Keynote Employment	95%				5%		
Destination Retail					100%		
Business: Regional Office	80%	15%			5%		
Business: Light Industrial	25%	70%			5%		
TREC	50%			15%	30%		5%
Industrial	5%	20%	70%		5%		

¹The floor area ratio is based on the total acreage of the site, while the Plan's land use mix tables are based on the area of the site occupied by the use. For instance, the Plan anticipates that Keynote Employment uses will occupy no more than 85% of the site with the remaining 15% accounting for parks and open space and public and civic uses. However, when calculating the maximum FAR potential for the site an applicant can use the gross acreage of the site allowing for 100% of the FAR to be allotted to Keynote Employment uses. Therefore, staff has used a similar evaluation when determining the build-out potential.

²The maximum potential for retail uses within areas planned for Keynote Employment, Business, and Industrial uses is limited to 5% of the nonresidential square footage per the Retail Plan.

³The land use mix percentages for office, residential, and retail land uses are similar to those proposed with ZMAP 2007-0001, Dulles Town Center

Table 2: Revised General Plan FAR/Dwelling Unit Assumptions

	Low	High
Urban Center	1.0 FAR Nonresidential Maximum Residential permitted without going over 25% of the total square footage (1,000 square feet per unit)	2.0 FAR Nonresidential Maximum Residential permitted without going over 24 dwelling units per acre over the gross acreage of the site (note: if calculated similar to the low calculations the dwelling units exceed 24 du/acre)
Keynote Employment	0.4 FAR (Retail 0.25 FAR) Assumed approved nonresidential and residential square footage approved with SPEX 2008-0054 and ZMAP 2008-0021, Kincora.	1.0 FAR (Retail 0.25 FAR) Assumed approved nonresidential and residential square footage approved with SPEX 2008-0054 and ZMAP 2008-0021, Kincora.
Destination Retail	0.2 FAR	0.3 FAR
Business: Regional Office	0.4 FAR (Light Industrial 0.2 FAR/Retail 0.25 FAR)	1.0 FAR (Light Industrial 0.2 FAR/Retail 0.25 FAR)
Business: Light Industrial	0.3 FAR (Light Industrial 0.2 FAR/Retail 0.25 FAR)	0.4 FAR (Light Industrial 0.2 FAR/Retail 0.25 FAR)
TREC	1.0 FAR overall	2.0 FAR overall
Industrial	0.2 FAR	0.2 FAR
Planned Residential	Assumed developed dwelling units on developed areas and 4 dus/acre on vacant or underdeveloped areas. Assumed existing office and retail square footage for the planned residential area north of Route 7 (Countryside and Parc City Centre).	Same as low calculation
Planned High Density Residential	Assumed 10 du/acre for Victoria Station and 8 du/acre for Pearson Reserve	Same as low calculation
Existing Residential	Assumed approved dwelling units	Same as low calculation

Table 3: Route 28 Corridor Plan

September 3, 2010 Staff Draft and October 20, 2010 Planning Commission Subcommittee Draft Land Use Mix Assumptions

	Office	Flex	Light Industrial	Industrial	Special Activity	Retail	Residential	Civic
Urban Center ¹	50%					15%	25%	10%
Mixed Use Office	50%					20%	25%	5%
Route 28 Core	90%					10%		
Route 28 Core (South of Sterling Blvd/East of Route 28) ²	70%					30%		
Route 28 Business (Office) ³	80%	15%				5%		
Route 28 Business (Flex) ³	25%	70%				5%		
TREC	50%				15%	30%		5%
Industrial		20%	65%	10%		5%		

¹The land use mix percentages for office, residential, and retail land uses are similar to those proposed with ZMAP 2007-0001, Dulles Town Center

²Assumed a higher percentage of retail uses south of Sterling Boulevard, east of Route 28 due to the higher amount of hotel uses envisioned in this area.

³Office percentages based on NAIOP definition which provides that flex uses typically have office percentages ranging from 25% to 75%.

**Table 4: Route 28 Corridor Plan FAR/Dwelling Unit Assumptions
September 3, 2010 Staff Draft**

	Low	High
Urban Center	1.0 FAR Nonresidential Maximum Residential permitted without going over 25% of the total square footage (1,000 square feet per unit)	2.0 FAR Nonresidential Maximum Residential permitted without going over 24 dwelling units per acre over the gross acreage of the site (note: if calculated similar to the low calculations the dwelling units exceed 24 du/acre)
Mixed Use Office	1.0 FAR overall (dwelling units calculated based on 1,000 square feet per unit). Northern Mixed-Use Office Center assumed approved nonresidential and residential square footage approved with SPEX 2008-0054 and ZMAP 2008-0021, Kincora.	2.0 FAR overall (dwelling units calculated based on 1,000 square feet per unit). Northern Mixed-Use Office Center assumed approved nonresidential and residential square footage approved with SPEX 2008-0054 and ZMAP 2008-0021, Kincora.
Route 28 Core	0.6 FAR	1.5 FAR (South of Sterling Blvd/East of Route 28 – Retail 0.6 FAR)
Route 28 Business (Office)	0.4 FAR (Flex 0.2 FAR/Retail 0.25 FAR)	1.0 FAR (Flex 0.2 FAR/Retail 0.25 FAR)
Route 28 Business (Flex)	0.2 FAR	0.4 FAR (Flex 0.2 FAR/Retail 0.25 FAR)
TREC	1.0 FAR	2.0 FAR
Industrial	0.2 FAR	0.2 FAR
Planned Residential	Assumed developed dwelling units on developed areas and 4 dus/acre on vacant or underdeveloped areas. Assumed existing office and retail square footage for the planned residential area north of Route 7 (Countryside and Parc City Centre).	Same as low calculation
Planned High Density Residential	Assumed 10 du/acre for Victoria Station and 8 du/acre for Pearson Reserve	Same as low calculation
Existing Residential	Assumed approved dwelling units	Same as low calculation

**Table 5: Route 28 Corridor Plan FAR/Dwelling Unit Assumptions
October 20, 2010 Planning Commission Subcommittee Draft**

	Low	High
Urban Center	1.0 FAR Nonresidential Maximum Residential permitted without going over 25% of the total square footage (1,000 square feet per unit)	2.0 FAR Nonresidential Maximum Residential permitted without going over 24 dwelling units per acre over the gross acreage of the site (note: if calculated similar to the low calculations the dwelling units exceed 24 du/acre)
Mixed Use Office	Northern – assumed approved nonresidential and residential square footage approved with SPEX 2008-0054 and ZMAP 2008-0021, Kincora	Northern – assumed approved nonresidential and residential square
		Central – 1.5 FAR overall (dwelling units calculated based on 1,000 square feet per unit).
	Central and Southern - 1.0 FAR overall (dwelling units calculated based on 1,000 square feet per unit)	Southern – 2.0 FAR overall (dwelling units calculated based on 1,000 square feet per unit).
Route 28 Core	0.6 FAR	1.0 FAR (South of Sterling Blvd/East of Route 28 – Retail 0.6 FAR)
Route 28 Business (Office)	0.4 FAR (Flex 0.2 FAR/Retail 0.25 FAR)	1.0 FAR (Flex 0.2 FAR/Retail 0.25 FAR)
Route 28 Business (Flex)	0.2 FAR	0.4 FAR (Flex 0.2 FAR/Retail 0.25 FAR)
TREC	1.0 FAR	2.0 FAR
Industrial	0.2 FAR	0.2 FAR
Planned Residential	Assumed developed dwelling units on developed areas and 4 dus/acre on vacant or underdeveloped areas. Assumed existing office and retail square footage for the planned residential area north of Route 7 (Countryside and Parc City Centre).	Same as low calculation
Planned High Density Residential	Assumed 10 du/acre for Victoria Station and 8 du/acre for Pearson Reserve	Same as low calculation
Existing Residential	Assumed approved dwelling units	Same as low calculation